

**APPENDIX A****CLAIMS AS AMENDED WITHOUT UNDERLINES OR BRACKETS**

Please amend claims 98 - 102, 105 - 118, 120 - 148, 150 - 156, 158 - 160, 162 - 173, 187 - 192, 194 - 197, 199 - 214, 216 - 220, 223 - 269, 271 - 281, 284, 285, 381 - 387, 389 - 391, 394 - 396, 399, 402, 405, 407 - 409, 411, 413, 414, 417, 420, 422, 423, 425, 427, 428, 430, 431, 433, 434, 436, 437, 439, 440, 443 - 446, 448, 450 - 453, 455, 456, 458 - 461, 463, 464, 467 - 470, 472, 473, 475, 477, 478, 480, 483 - 485, 487, 488, 490 - 494, 496, 497, 499, 501, 502, 504, 505, and 507 - 510, as follows:

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98. (Amended) A system comprising:

a first memory storing prior pixel image information, the prior pixel image information representing a prior image;

a second memory storing next pixel image information, the next pixel image information representing a next image;

a spatial interpolation circuit coupled to the first memory and coupled to the second memory, the spatial interpolation circuit generating spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

a subpixel vector change circuit coupled to the first memory and coupled to the second memory, the subpixel vector change circuit generating subpixel vector change information having subpixel resolution in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

a transform processor coupled to the spatial interpolation circuit, the transform processor generating transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit;

a weight circuit generating weight information;

a scale factor circuit generating scale factor information;

a weighting and scaling circuit coupled to the scale factor circuit, coupled to the weight circuit, and coupled to the transform processor, the weighting and scaling circuit generating scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

a resolution reduction circuit coupled to the weighting and scaling circuit, the resolution reduction circuit generating reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit;

an image communication link coupled to the resolution reduction circuit, the image communication link communicating output image information in response to the reduced resolution image information generated by the resolution reduction circuit;

a vector communication link coupled to the subpixel vector change circuit, the vector communication link communicating output subpixel vector information in response to the subpixel vector change information generated by the subpixel vector change circuit;

a display circuit coupled to the resolution reduction circuit, the display circuit generating display image information in response to the reduced resolution image information generated by the resolution reduction circuit; and

a display device coupled to the display circuit, the display device displaying an image in response to the display image information generated by the display circuit.

99. (Amended) A system as set forth in claim 98,

wherein the first memory is a first intermediate memory storing the prior pixel image information as intermediate prior pixel image information, and the prior pixel image information representing the prior image;

wherein the second memory is a second intermediate memory storing the next pixel image information as intermediate next pixel image information, the second memory storing the next pixel image information and the next pixel image information representing the next image;

wherein the spatial interpolation circuit is a two dimensional spatial interpolation circuit generating the spatially interpolated image information as two dimensional spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the transform processor is a frequency domain transform processor generating the transformed image information as frequency domain transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit;

wherein the weight circuit is a shaded weight circuit generating the weight information as shaded weight information;

wherein the scale factor circuit is a geometric scale factor circuit generating the scale factor information as geometric scale factor information;

wherein the weighting and scaling circuit is a sum of the products weighting and scaling circuit generating the scaled weighted image information as sum of the products scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

wherein the resolution reduction circuit is a fraction removal resolution reduction circuit generating the reduced resolution image information as fraction removal reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit;

wherein the image communication link is a digital image communication link communicating the output image information as digital output image information in response to the reduced resolution image information generated by the resolution reduction circuit;

wherein the vector communication link is a digital vector communication link communicating output subpixel vector information in response to the subpixel vector change information generated by the subpixel vector change circuit as digital output subpixel vector information;

wherein the display circuit is a data decompression display circuit generating the display image information as data decompression display image information in response to the reduced resolution image information generated by the resolution reduction circuit; and

wherein the display device is a CRT display device displaying the image as a CRT image in response to the display image information generated by the display circuit.

100. (Amended) A system as set forth in claim 98,

wherein the first memory is a first mosaic memory storing the prior pixel image information as prior pixel mosaic image information, and the prior pixel image information representing the prior image;

wherein the second memory is a second mosaic memory storing the next pixel image information as next pixel mosaic image information, the second memory storing the next pixel image information and the next pixel image information representing the next image;

I、 wherein the spatial interpolation circuit is a half pixel resolution spatial interpolation circuit generating the spatially interpolated image information as half pixel resolution spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the subpixel vector change circuit is an XIP, YIP subpixel vector change circuit generating the subpixel vector change information having subpixel resolution as XIP, YIP vector change information having subpixel resolution in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the transform processor is a coordinate transform processor generating the transformed image information as coordinate transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit;

wherein the weight circuit is a weight memory circuit generating the weight information as stored weight information;

wherein the scale factor circuit is a scale factor memory circuit generating the scale factor information as stored scale factor information;

wherein the weighting and scaling circuit is an antialiasing weighting and scaling circuit generating the scaled weighted image information as antialiasing scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

wherein the resolution reduction circuit is a truncation resolution reduction circuit generating the reduced resolution image information as truncated reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit;

wherein the image communication link is a television image communication link communicating the output image information as television output image information in response to the reduced resolution image information generated by the resolution reduction circuit;

wherein the vector communication link is a television vector communication link communicating output subpixel vector information in response to the subpixel vector change information generated by the subpixel vector change circuit as television output subpixel vector information;

wherein the display circuit is a composite display circuit generating the display image information as composite display image information in response to the reduced resolution image information generated by the resolution reduction circuit; and

wherein the display device is a liquid crystal display device displaying the image as a liquid crystal image in response to the display image information generated by the display circuit.

101. (Amended) A system as set forth in claim 98,

wherein the first memory is a first data base memory storing the prior pixel image information, and the prior pixel image information representing the prior image;

wherein the second memory is a second data base memory storing the next pixel image information, the second memory storing the next pixel image information and the next pixel image information representing the next image;

wherein the spatial interpolation circuit is an antialiasing spatial interpolation circuit generating the spatially interpolated image information as antialiasing spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the subpixel vector change circuit is an initial point subpixel vector change circuit generating the subpixel vector change information having subpixel resolution as initial point vector change information having subpixel resolution in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the transform processor is a Fourier transform processor generating the transformed image information as Fourier transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit;

wherein the weight circuit is a subpixel coordinate weight circuit generating the weight information as subpixel coordinate weight information;

wherein the scale factor circuit is a weight scale factor circuit generating the scale factor information as weight scale factor information;

wherein the weighting and scaling circuit is a geometric weighting and scaling circuit generating the scaled weighted image information as geometric scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

wherein the resolution reduction circuit is a roundoff resolution reduction circuit generating the reduced resolution image information as rounded off reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit;

wherein the image communication link is a data compressed image communication link communicating the output image information as data compressed output image information in response to the reduced resolution image information generated by the resolution reduction circuit;

wherein the vector communication link is a data compressed vector communication link communicating output subpixel vector information in response to the subpixel vector change information generated by the subpixel vector change circuit as data compressed output subpixel vector information;

wherein the display circuit is an NTSC display circuit generating the display image information as NTSC display image information in response to the reduced resolution image information generated by the resolution reduction circuit; and

wherein the display device is a CRT display device displaying the image as a CRT image in response to the display image information generated by the display circuit.

102. (Amended) A system as set forth in claim 98,

wherein the first memory is a first image memory storing the prior pixel image information as eight bit prior pixel image information, and the prior pixel image information representing the prior image;

wherein the second memory is a second image memory storing the next pixel image information as eight bit next pixel image information, the second memory storing the next pixel image information and the next pixel image information representing the next image;

wherein the spatial interpolation circuit is a subpixel resolution spatial interpolation circuit generating the spatially interpolated image information as subpixel resolution spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the subpixel vector change circuit is an initial condition subpixel vector change circuit generating the subpixel vector change information having subpixel resolution as initial condition vector change information having subpixel resolution in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the transform processor is a geometric transform processor generating the transformed image information as geometric transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit;

wherein the weight circuit is a kernel weight circuit generating the weight information as kernel weight information;

wherein the scale factor circuit is a kernel scale factor circuit generating the scale factor information as kernel scale factor information;

wherein the weighting and scaling circuit is a kernel weighting and scaling circuit generating the scaled weighted image information as kernel scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

wherein the resolution reduction circuit is an integer resolution reduction circuit generating the reduced resolution image information as integer reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit;

wherein the image communication link is a video image communication link communicating the output image information as video output image information in response to the reduced resolution image information generated by the resolution reduction circuit;

wherein the vector communication link is a video vector communication link communicating output subpixel vector information in response to the subpixel vector change information generated by the subpixel vector change circuit as video output subpixel vector information;

wherein the display circuit is a red, green, blue display circuit generating the display image information as red, green, blue display image information in response to the reduced resolution image information generated by the resolution reduction circuit; and

wherein the display device is a red, green, blue display device displaying the image as a red, green, blue image in response to the display image information generated by the display circuit.



105. (Amended) A system comprising:

a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;

a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;

a prior vector circuit generating prior vector information in response to the frame of prior pixel image information;

a next vector circuit generating next vector information in response to the frame of next pixel image information;

a temporal interpolation circuit generating a frame of temporally interpolated information in response to the prior vector information, in response to the next vector information, in response to the frame of prior pixel image information, and in response to the frame of next pixel image information; and

12 a transform processor generating transformed image information in response to the frame of temporally interpolated information, in response to the frame of prior pixel image information, and in response to the frame of next pixel image information.

106. (Amended) A system as set forth in claim 105, further comprising:

an RF communication link communicating output image information in response to the transformed image information.

107. (Amended) A system comprising:

a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;

a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;

a prior vector circuit generating prior motion vector information in response to the frame of prior pixel image information;

a next vector circuit generating next motion vector information in response to the frame of next pixel image information; and

a spatial interpolation processor coupled to the first memory and coupled to the second memory, the spatial interpolation processor generating a frame of spatially interpolated image information in response to the prior motion vector information, in response to the next motion vector information, in response to the frame of prior pixel image information, and in response to the frame of next pixel image information.

108. (Amended) A system as set forth in claim 107, further comprising:

an RF communication link coupled to the spatial interpolation processor, the RF communication link communicating output image information in response to the frame of spatially interpolated image information generated by the spatial interpolation processor.

109. (Amended) A process comprising the acts of:

storing a prior 64-pixel block of image information, the prior 64-pixel block of image information representing a prior image;

storing a next 64-pixel block of image information, the next 64-pixel block of image information representing a next image;

generating prior motion vector information in response to the prior 64-pixel block of image information;

generating next motion vector information in response to the next 64-pixel block of image information; and

generating temporally interpolated image information by temporally interpolating between the prior motion vector information and the next motion vector information in response to the prior 64-pixel block of image information and in response to the next 64-pixel block of image information.

110. (Amended) A process as set forth in claim 109, further comprising the act of:

communicating output image information over an RF data link in response to the temporally interpolated image information image information.

111. (Amended) A process as set forth in claim 109, further comprising the act of making a DVD product.

112. (Amended) A process as set forth in claim 109, further comprising the acts of:  
storing at least two digital bits of information in a plurality of levels in each of a plurality of multilevel memory cells;  
generating accessed digital information in response to the at least two digital bits of information stored in each of the plurality of multilevel memory cells; and  
generating the temporally interpolated image information in response to the accessed digital information.

113. (Amended) A process comprising the acts of:  
storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;  
storing a frame of next pixel image information, the frame of next pixel image information representing a next image; and  
generating subpixel change information having subpixel resolution by subtracting between the frame of prior pixel image information and the frame of next pixel image information.

114. (Amended) A process as set forth in claim 113, further comprising the act of making a digital video disk product in response to process set forth in claim 113.

115. (Amended) A process comprising the acts of:  
storing prior pixel image information, the prior pixel image information representing a prior image;  
storing next pixel image information, the next pixel image information representing a next image; and  
generating 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information and in response to the next pixel image information.

116. (Amended) A process as set forth in claim 115, further comprising the act of making a video disk product in response to the 64-pixel blocks of spatially interpolated image information.

117. (Amended) A system comprising:

a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;

a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;

a spatial interpolation circuit generating a frame of spatially interpolated image information in response to the frame of prior pixel image information and in response to the frame of next pixel image information;

a scale factor input circuit generating scale factor information;

a scale factor memory;

a writing circuit coupled to the scale factor memory and coupled to the scale factor input circuit, the writing circuit writing scale factor input information into the scale factor memory in response to the scale factor information, the scale factor memory storing the scale factor input information; and

a scaling processor coupled to the spatial interpolation circuit and coupled to the scale factor memory, the scaling processor generating scaled image information in response to the scale factor input information stored in the scaled memory and in response to the frame of spatially interpolated image information generated by the spatial interpolation circuit.

118. (Amended) A system as set forth in claim 117, further comprising:

an RF communication link coupled to the scaling processor, the RF communication link communicating output image information in response to the scaled image information generated by the scaling processor.

120. (Amended) A system as set forth in claim 115, further comprising the acts of:  
storing at least two digital bits of information in a plurality of levels in each of a plurality of multilevel memory cells;  
generating accessed digital information in response to the at least two digital bits of information stored in each of the plurality of multilevel memory cells; and  
generating the 64-pixel blocks of spatially interpolated image information in response to the accessed digital information.

121. (Amended) A system comprising:  
a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;  
a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;  
a prior vector circuit generating prior vector information in response to the frame of prior pixel image information;  
a next vector circuit generating next vector information in response to the frame of next pixel image information; and  
a temporal interpolation processor generating a frame of temporally interpolated image information by temporally interpolating between the frame of prior pixel image information and the frame of next pixel image information in response to the prior vector information and in response to the next vector information.

122. (Amended) A system as set forth in claim 121, further comprising:  
an RF communication link communicating output image information in response to the frame of temporally interpolated image information.

123. (Amended) A system comprising:

- a first memory storing prior pixel image information, the prior pixel image information representing a prior image;
- a second memory storing next pixel image information, the next pixel image information representing a next image;
- a prior vector circuit generating prior motion vector information in response to the prior pixel image information;
- a next vector circuit generating next motion vector information in response to the next pixel image information; and
- a transform processor generating transformed image information in response to the prior motion vector information, in response to the next motion vector information, in response to the prior pixel image information stored in the first memory, and in response to the next pixel image information stored in the second memory.

124. (Amended) A system as set forth in claim 123, further comprising:

- an RF communication link communicating output image information in response to the transformed image information.

125. (Amended) A process comprising the acts of:

- storing prior pixel image information representing a prior image;
- storing next pixel image information representing a next image;
- generating temporally interpolated image information in response to the prior pixel image information and in response to the next pixel image information; and
- generating transformed image information in response to the temporally interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information.

126. (Amended) A process as set forth in claim 125, further comprising the act of:

- communicating output image information over an RF data link in response to the transformed image information.

127. (Amended) A process comprising the acts of:  
 storing prior pixel image information representing a prior image;  
 storing next pixel image information representing a next image; and  
 generating transformed image information in response to the prior pixel image information and in response to the next pixel image information.

128. (Amended) A process as set forth in claim 127, further comprising the act of:  
 communicating output image information over an RF data link in response to the transformed image information.

129. (Amended) A process as set forth in claim 127, further comprising the act of  
 generating artificial intelligence information in response to the transformed image information.

130. (Amended) A process as set forth in claim 125, further comprising the act of  
 making a display product. *an image*

131. (Amended) A system comprising:  
 a memory storing pixel image information;  
 a subpixel change circuit generating subpixel change information having subpixel resolution by subtracting in response to the pixel image information and in response to feedback information;  
 a transform processor generating transformed image information in response to the pixel image information;  
 a scale factor input circuit generating scale factor information;  
 a scale factor memory;  
 a writing circuit writing scale factor input information into the scale factor memory in response to the scale factor input information, the scale factor memory storing the scale factor input information;

a scaling processor generating scaled image information in response to the transformed image information and in response to the scale factor input information; and  
a feedback processor generating the feedback information in response to the scaled image information.

132. (Amended) A system as set forth in claim 131, further comprising:

an RF communication link communicating output image information in response to the scaled image information.

133. (Amended) A system comprising:

a first memory storing prior pixel image information, the prior pixel image information representing a prior image;

a second memory storing next pixel image information, the next pixel image information representing a next image;

a temporal interpolation processor coupled to the first memory and coupled to the second memory, the temporal interpolation processor generating 64-pixel blocks of temporally interpolated image information in response to the prior pixel image information and in response to the next pixel image information; and

a transform processor coupled to the temporal interpolation processor, the transform processor generating transformed image information in response to the 64-pixel blocks of temporally interpolated image information generated by the temporal interpolation processor, in response to the prior pixel image information, and in response to the next pixel image information.

134. (Amended) A system as set forth in claim 133, further comprising:

an RF communication link coupled to the transform processor, the RF communication link communicating output image information in response to the transformed image information generated by the transform processor.



135. (Amended) A system comprising:

a first frame memory storing a prior frame of image information;  
a second frame memory storing a next frame of image information;  
a temporal interpolation processor generating a temporally interpolated frame of image information in response to the prior frame of image information and in response to the next frame of image information; and  
a transform processor coupled to the temporal interpolation processor, the transform processor generating transformed image information in response to the frame of temporally interpolated image information generated by the temporal interpolation processor, in response to the prior frame of image information, and in response to the next frame of image information.

136. (Amended) A system as set forth in claim 135, further comprising:

an RF communication link coupled to the transform processor, the RF communication link communicating output image information in response to the transformed image information generated by the transform processor.

137. (Amended) A system comprising:

a first memory storing prior pixel image information, the prior pixel image information representing a prior image;  
a second memory storing next pixel image information, the next pixel image information representing a next image;  
a prior vector circuit generating prior motion vector information in response to the prior pixel image information;  
a next vector circuit generating next motion vector information in response to the next pixel image information;  
a spatial interpolation circuit generating spatially interpolated image information in response to the prior motion vector information, in response to the next motion vector information, in response to the prior pixel image information, and in response to the next pixel image information;

a transform processor generating transformed image information in response to the spatially interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information;

a weight input circuit generating weight information;

a weight memory;

a writing circuit writing weight input information into the weight memory in response to the weight information, the weight memory storing the weight input information; and

a weighting processor generating weighted image information in response to the transformed image information and in response to the weight input information stored in the weight memory.

138. (Amended) A system as set forth in claim 137, further comprising:

an RF communication link communicating output image information in response to the weighted image information.

139. (Amended) A system comprising:

a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;

a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;

a spatial interpolation circuit generating a frame of spatially interpolated image information in response to the frame of prior pixel image information stored in the first memory and in response to the frame of next pixel image information stored in the second memory; and

a subpixel vector change circuit generating subpixel vector change information generated by the subpixel vector change circuit having subpixel resolution in response to the frame of prior pixel image information stored in the first memory and in response to the frame of next pixel image information stored in the second memory.

140. (Amended) A system as set forth in claim 139, further comprising:  
 an RF communication link communicating output image information in response to the frame of spatially interpolated image information.

141. (Amended) A system comprising:  
 a first memory storing prior pixel image information, the prior pixel image information representing a prior image;  
 a second memory storing next pixel image information, the next pixel image information representing a next image;  
 a prior vector circuit generating prior vector information in response to the prior pixel image information;  
 a next vector circuit generating next vector information in response to the next pixel image information;  
 a weight circuit generating weight information;  
 a scale factor circuit generating scale factor information; and  
 a weighting and scaling circuit generating scaled weighted image information in response to the prior vector information, in response to the next vector information, in response to the scale factor information, in response to the weight information, in response to the prior pixel image information, and in response to the next pixel image information.

142. (Amended) A system as set forth in claim 141, further comprising:  
 an RF communication link communicating output image information in response to the scaled weighted image information.

143. (Amended) A process comprising the acts of:  
 storing prior pixel image information representing a prior image;  
 storing next pixel image information representing a next image;  
 generating weight information;  
 generating scale factor information; and

generating scaled weighted image information in response to the prior pixel image information, in response to the next pixel image information, in response to the scale factor information, and in response to the weight information.

144. (Amended) A process as set forth in claim 143, further comprising the act of:  
communicating output image information over an RF data link in response to the scaled weighted image information.

145. (Amended) A system comprising:  
a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;  
a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;  
a scale factor input circuit generating scale factor information;  
a scale factor memory;  
a writing circuit writing scale factor input information into the scale memory in response to the scale factor information; and  
a scaling processor generating scaled image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, and in response to the scale factor input information stored in the scale factor memory.

146. (Amended) A system as set forth in claim 145, further comprising:  
an RF communication link communicating output image information in response to the scaled image information.

147. (Amended) A process as set forth in claim 143, further comprising the acts of:  
generating data compressed image information in response to the scaled weighted image information;  
generating spatially interpolated image information in response to the data compressed image information;

generating temporally interpolated image information in response to the spatially interpolated image information; and

generating the prior pixel image information in response to the temporally interpolated image information.

148. (Amended) A process as set forth in claim 143, further comprising the acts:  
 generating data compressed image information in response to the transformed image information;  
 generating transformed image information in response to the data compressed image information; and  
 generating the prior pixel image information in response to the transformed image information.

150. (Amended) A system as set forth in claim 149, further comprising:  
 an RF communication link coupled to the weighting and scaling circuit, the RF communication link communicating output image information in response to the scaled weighted image information generated by the weighting and scaling circuit.

151. (Amended) A system comprising:  
 a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;  
 a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image; and  
 a spatial interpolation circuit generating a frame of spatially interpolated image information in response to the frame of prior pixel image information stored in the first memory and in response to the frame of next pixel image information stored in the second memory.

152. (Amended) A system as set forth in claim 151, further comprising:  
 an RF communication link communicating output image information in response to the frame of spatially interpolated image information.

153. (Amended) A process comprising the acts of:

- storing pixel image information in a memory;
- generating spatially interpolated image information in response to the pixel image information and in response to feedback information;
- generating weight information;
- generating scale factor information;
- generating scaled weighted image information in response to the spatially interpolated image information, in response to the scale factor information, and in response to the weight information; and
- generating the feedback information in response to the scaled weighted image information.

154. (Amended) A process as set forth in claim 153, further comprising the act of:

- communicating output image information over an RF data link in response to the scaled weighted image information.

155. (Amended) A system comprising:

- a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;
- a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;
- a prior vector circuit generating prior vector information in response to the frame of prior pixel image information;
- a next vector circuit generating next vector information in response to the frame of next pixel image information; and
- a spatial interpolation circuit generating a frame of spatially interpolated image information in response to the prior vector information, in response to the next vector information, in response to the frame of prior pixel image information, and in response to the frame of next pixel image information.

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156. (Amended) A system as set forth in claim 155, further comprising:  
an RF communication link coupled to the weighting circuit, the RF communication link communicating output image information in response to the frame of spatially interpolated image information.

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158. (Amended) A process as set forth in claim 157, further comprising the act of:  
communicating output image information over an RF data link in response to the scaled weighted image information.

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159. (Amended) A system comprising:  
a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;  
a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image; and  
a transform processor generating transformed image information in response to the frame of prior pixel image information stored in the first memory and in response to the frame of next pixel image information stored in the second memory.

160. (Amended) A system as set forth in claim 159, further comprising:  
an RF communication link communicating output image information in response to the transformed image information.

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162. (Amended) A process as set forth in claim 161, further comprising the act of:  
communicating output image information over an RF data link in response to the scaled weighted image information.

163. (Amended) A system comprising:

a first memory storing prior pixel image information, the prior pixel image information representing a prior image;

a second memory storing next pixel image information, the next pixel image information representing a next image;

a subpixel vector change circuit generating subpixel vector change information having subpixel resolution in response to the prior pixel image information and in response to the next pixel image information; and

a transform processor generating transformed image information in response to the prior pixel image information and in response to the next pixel image information.

164. (Amended) A system as set forth in claim 163, further comprising:

an RF communication link communicating output image information in response to the transformed image information.

165. (Amended) A process comprising the acts of:

storing pixel image information in a memory;

generating spatially interpolated image information in response to the pixel image information stored in the memory and in response to feedback information;

generating transformed image information in response to the spatially interpolated image information;

generating weight information;

generating scale factor information;

generating scaled weighted image information in response to the transformed image information, in response to the scale factor information, and in response to the weight information; and

generating the feedback information in response to the scaled weighted image information.



166. (Amended) A process as set forth in claim 165, further comprising the acts of:  
 generating data compressed image information in response to the scaled weighted image information;  
 generating second transformed image information in response to the data compressed image information; and  
 generating the feedback image information in response to the second transformed image information.

167. (Amended) A system comprising:  
 a first memory storing prior pixel image information, the prior pixel image information representing a prior image;  
 a second memory storing next pixel image information, the next pixel image information representing a next image;  
 a spatial interpolation circuit generating spatially interpolated image information in response to prior pixel image information and in response to next pixel image information; and  
 a transform processor coupled to the spatial interpolation circuit, the transform processor generating transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit, in response to prior pixel image information, and in response to next pixel image information.

168. (Amended) A system as set forth in claim 167, further comprising:  
 an RF communication link coupled to the weighting circuit, the RF communication link communicating output image information in response to the transformed image information generated by the weighting circuit.

169. (Amended) A system comprising:  
 a first memory storing a frame of prior pixel image information, the frame of prior pixel image information representing a prior image;  
 a second memory storing a frame of next pixel image information, the frame of next pixel image information representing a next image;

a spatial interpolation circuit generating a frame of spatially interpolated image information in response to the frame of prior pixel image information and in response to the frame of next pixel image information;

a subpixel vector change circuit generating subpixel vector change information having subpixel resolution in response to the frame of prior pixel image information and in response to the frame of next pixel image information; and

a transform processor generating transformed image information in response to the frame of spatially interpolated image information, in response to the frame of prior pixel image information, and in response to the frame of next pixel image information.

170. (Amended) A system as set forth in claim 169, further comprising:

an RF communication link communicating output image information in response to the transformed image information.

171. (Amended) A process comprising the acts of:

storing prior pixel image information, the prior pixel image information representing a prior image;

storing next pixel image information, the next pixel image information representing a next image;

generating prior motion vector information in response to the prior pixel image information;

generating next motion vector information in response to the next pixel image information;

generating 64-pixel blocks of spatially interpolated image information in response to the prior motion vector information, in response to the next motion vector information, in response to the prior pixel image information, and in response to the next pixel image information; and

generating transformed image information in response to the 64-pixel blocks of spatially interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information.

172. (Amended) A process as set forth in claim 171, further comprising the act of:  
communicating output image information over an RF data link in response to the transformed image information.

173. (Amended) A process as set forth in claim 171, further comprising the acts of:  
generating data compressed image information in response to the transformed image information;  
generating second spatially interpolated image information in response to the data compressed image information;  
generating temporally interpolated image information in response to the second spatially interpolated image information; and  
generating the prior pixel image information in response to the temporally interpolated image information.

187. (Amended) A process comprising the acts of:  
storing prior pixel image information, the prior pixel image information representing a prior image;  
storing next pixel image information, the next pixel image information representing a next image;  
generating prior vector information in response to the prior pixel image information;  
generating next vector information in response to the next pixel image information;  
generating 64-pixel blocks of spatially interpolated image information in response to the prior vector information, in response to the next vector information, in response to the prior pixel image information, and in response to the next pixel image information; and  
generating transformed image information in response to the 64-pixel blocks of spatially interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information.

8b 51/ ~~188. (Amended) A process as set forth in claim 187, further comprising the act of:~~  
~~communicating output image information over an RF data link in response to the~~  
~~transformed image information.~~

189. (Amended) A process as set forth in claim 187, further comprising the acts of:  
 storing weight information;  
 storing scale factor information;  
 generating scaled weighted image information in response to the weight  
 information, in response to the scale factor information, and in response to the transformed image  
 information; and  
 generating the prior pixel image information in response to the scaled weighted  
 image information.

I 2 8b 52/ ~~190. (Amended) A process comprising the acts of:~~  
~~storing pixel image information in a memory;~~  
~~generating spatially interpolated image information in response to the pixel image~~  
~~information stored in the memory;~~  
~~generating subpixel change image information having subpixel resolution by~~  
~~subtracting in response to the pixel image information stored in the memory and in response to~~  
~~feedback information; and~~  
~~generating the feedback information in response to the subpixel change image~~  
~~information.~~

191. (Amended) A process as set forth in claim 190, further comprising the act of:  
 communicating output image information in response to the spatially interpolated  
 image information.

192. (Amended) A process as set forth in claim 190, further comprising the acts of:

- generating data compressed image information in response to the spatially interpolated image information;
- generating transformed image information in response to the data compressed image information; and
- generating the feedback image information in response to the transformed image information.

194. (Amended) A process as set forth in claim 193, further comprising the act of:

- communicating output image information over an RF data link in response to the pixel image information stored in the memory.

195. (Amended) A process as set forth in claim 190, further comprising the acts of:

- generating data compressed image information in response to the spatially interpolated image information;
- storing weight information;
- storing scale factor information;
- generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;
- generating transformed image information in response to the scaled weighted image information;
- generating second spatially interpolated image information in response to the transformed image information;
- generating temporally interpolated image information in response to the second spatially interpolated image information; and
- generating the feedback image information in response to the temporally interpolated image information.

196. (Amended) A process as set forth in claim 193, further comprising the acts of:  
generating transformed image information in response to the pixel image information; and  
generating the feedback image information in response to the transformed image information.

197. (Amended) A process as set forth in claim 193, further comprising the acts of:  
storing weight information;  
storing scale factor information;  
generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the pixel image information;  
generating transformed image information in response to the scaled weighted image information;  
generating spatially interpolated image information in response to the transformed image information;  
generating temporally interpolated image information in response to the spatially interpolated image information; and  
generating the feedback image information in response to the temporally interpolated image information.

199. (Amended) A process as set forth in claim 198, further comprising the act of:  
communicating output image information over an RF data link in response to the pixel image information.

200. (Amended) A process as set forth in claim 198, further comprising the acts of:  
generating data compressed image information in response to the pixel image information;  
storing weight information;  
storing scale factor information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating transformed image information in response to the scaled weighted image information;

generating spatially interpolated image information in response to the transformed image information;

generating temporally interpolated image information in response to the spatially interpolated image information; and

generating the feedback image information in response to the temporally interpolated image information.

201. (Amended) A process comprising the acts of:

storing pixel image information in a memory;

generating 64-pixel blocks of spatially interpolated image information in response to the pixel image information stored in the memory and in response to feedback information;

generating weight information;

writing weight input information into a weight memory in response to the weight information;

storing the weight input information in the weight memory;

generating weighted image information in response to the 64-pixel blocks of spatially interpolated image information and in response to the weight input information stored in the weight memory; and

generating the feedback information in response to the weighted image information.

202. (Amended) A process as set forth in claim 201, further comprising the act of:

communicating output image information over an RF data link in response to the weighted image information.

203. (Amended) A process as set forth in claim 201, further comprising the acts of:  
generating data compressed image information in response to the scaled weighted image information;  
generating transformed image information in response to the data compressed image information; and  
generating the feedback image information in response to the transformed image information.

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204. (Amended) A process comprising the acts of:  
storing prior pixel image information representing a prior image;  
storing next pixel image information representing a next image;  
generating 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information and in response to the next pixel image information;  
generating scale factor information;  
writing scale factor input information into a memory in response to the scale factor information;  
storing the scale factor input information in the memory; and  
generating scaled image information in response to the 64-pixel blocks of spatially interpolated image information and in response to the scale factor input information stored in the memory.

205. (Amended) A process as set forth in claim 204, further comprising the act of:  
communicating output image information over an RF data link in response to the scaled image information.

206. (Amended) A process as set forth in claim 204, further comprising the acts of:  
generating data compressed image information in response to the scaled image information;  
generating temporally interpolated image information in response to the data compressed image information; and



generating the prior pixel image information in response to the temporally interpolated image information.

207. (Amended) A process as set forth in claim 204, further comprising the acts of:  
storing at least two digital bits of information in a plurality of levels in each of a plurality of multilevel memory cells;  
generating accessed digital information in response to the at least two digital bits of information stored in each of the plurality of multilevel memory cells; and  
generating the 64-pixel blocks of spatially interpolated image information in response to the accessed digital information.

208. (Amended) A process as set forth in claim 204, further comprising the act of:  
making a manufactured product in response to the 64-pixel blocks of spatially interpolated image information.

209. (Amended) A process comprising the acts of:  
storing prior pixel image information, the prior pixel image information representing a prior image;  
storing next pixel image information, the next pixel image information representing a next image;  
generating prior motion vector information in response to the prior pixel image information;  
generating next motion vector information in response to the next pixel image information; and  
generating 64-pixel blocks of spatially interpolated image information in response to the prior motion vector information, in response to the next motion vector information in response to the prior pixel image information, and in response to the next pixel image information.

210. (Amended) A process as set forth in claim 209, further comprising the act of:  
communicating output image information over an RF data link in response to the  
64-pixel blocks of spatially interpolated image information.

211. (Amended) A process as set forth in claim 209, further comprising the acts of:  
generating data compressed 64-pixel blocks of image information in response to  
the 64-pixel blocks of spatially interpolated image information;  
storing weight information;  
storing scale factor information;  
generating 64-pixel blocks of scaled weighted image information in response to  
the weight information, in response to the scale factor information, and in response to the data  
compressed 64-pixel blocks of image information; and  
generating the prior pixel image information in response to the 64-pixel blocks of  
scaled weighted image information.

212. (Amended) A process comprising the acts of:  
storing a prior 64-pixel block of image information, the prior 64-pixel block of  
image information representing a prior image;  
storing a next 64-pixel block of image information, the next 64-pixel block of  
image information representing a next image;  
generating prior motion vector information in response to the prior 64-pixel block  
of image information;  
generating next motion vector information in response to the next 64-pixel block  
of image information;  
generating a temporally interpolated 64-pixel block of image information by  
temporally interpolating in response to the prior motion vector information, in response to the  
next motion vector information, in response to the prior 64-pixel block of image information, and  
in response to the next 64-pixel block of image information; and

generating transformed image information in response to the temporally interpolated 64-pixel block of image information, in response to the prior 64-pixel block of image information, and in response to the next 64-pixel block of image information.

213. (Amended) A process as set forth in claim 212, further comprising the act of:  
communicating output image information over an RF data link in response to the transformed image information.

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214. (Amended) A process as set forth in claim 212, further comprising the acts of:  
generating data compressed 64-pixel blocks of image information in response to the 64-pixel blocks of transformed image information;  
storing weight information;  
storing scale factor information;  
generating 64-pixel blocks of scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed 64-pixel blocks of image information; and  
generating the prior 64-pixel block of image information in response to the 64-pixel blocks of scaled weighted image information.

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216. (Amended) A process as set forth in claim 215, further comprising the act of:  
communicating output image information over an RF data link in response to the pixel image information stored in the memory.

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217. (Amended) A process as set forth in claim 215, further comprising the acts of:  
generating data compressed image information in response to the transformed image information;  
storing weight information;  
storing scale factor information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;

generating spatially interpolated image information in response to the second transformed image information;

generating temporally interpolated image information in response to the of spatially interpolated image information; and

generating the feedback image information in response to the temporally interpolated image information.

218. (Amended) A process comprising the acts of:

storing pixel image information in a memory;

generating transformed image information in response to pixel image information and in response to feedback information;

generating scale factor information;

writing scale factor input information into a scale memory in response to the scale factor information;

storing the scale factor input information in the scale memory;

generating scaled image information in response to the transformed image information and in response to the scale factor input information stored in the scale memory; and  
generating the feedback information in response to the scaled image information.

219. (Amended) A process as set forth in claim 218, further comprising the acts of:

generating data compressed image information in response to the scaled image information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;

generating second spatially interpolated image information in response to the second transformed image information;

generating temporally interpolated image information in response to the second spatially interpolated image information; and

generating the feedback image information in response to the temporally interpolated image information.

220. (Amended) A process as set forth in claim 218, further comprising the act of:

communicating output image information over an RF data link in response to the scaled image information.

223. (Amended) A process comprising the acts of:

storing prior pixel image information representing a prior image;

storing next pixel image information representing a next image;

generating subpixel vector change information having subpixel resolution in response to the prior pixel image information and in response to the next pixel image information; and

generating transformed image information in response to the prior pixel image information and in response to the next pixel image information.

224. (Amended) A process as set forth in claim 223, further comprising the act of:

communicating output image information over an RF data link in response to the transformed image information.

225. (Amended) A process as set forth in claim 223, further comprising the acts of:

generating data compressed image information in response to the transformed image information;

storing scale factor information;

generating scaled image in response to the scale factor information and in response to the data compressed image information; and  
generating the prior pixel image information in response to the scaled image information.

226. (Amended) A process comprising the acts of:  
storing a frame of prior pixel image information representing a prior image;  
storing a frame of next pixel image information representing a next image;  
generating a frame of spatially interpolated image information in response to the frame of prior pixel image information and in response to the frame of next pixel image information; and  
generating transformed image information in response to the frame of spatially interpolated image information, in response to the frame of prior pixel image information, and in response to the frame of next pixel image information.

227. (Amended) A process as set forth in claim 226, further comprising the act of:  
communicating output image information over an RF data link in response to the transformed image information.

228. (Amended) A process as set forth in claim 226, further comprising the acts of:  
storing weight information;  
storing scale factor information;  
generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the transformed image information; and  
generating the frame of prior pixel image information in response to the scaled weighted image information.

229. (Amended) A process comprising the acts of:

storing prior pixel image information representing a prior image;  
 storing next pixel image information representing a next image;  
 generating 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information and in response to the next pixel image information; and  
 generating transformed image information in response to the 64-pixel blocks of spatially interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information.

230. (Amended) A process as set forth in claim 229, further comprising the act of:

communicating output image information over an RF data link in response to the transformed image information.

231. (Amended) A process as set forth in claim 229, further comprising the acts of:

storing weight information;  
 generating weighted image information in response to the weight information and in response to the transformed image information; and  
 generating the prior pixel image information in response to the weighted image information.

232. (Amended) A process comprising the acts of:

storing pixel image information in a memory;  
 generating 64-pixel blocks of spatially interpolated image information in response to the pixel image information;  
 generating delta subpixel information having subpixel resolution in response to the pixel image information and in response to feedback information;  
 generating transformed image information in response to 64-pixel blocks of spatially interpolated image information; and  
 generating the feedback information in response to the transformed image information.

233. (Amended) A process as set forth in claim 232, further comprising the act of:  
communicating output image information over an RF data link in response to the transformed image information.

234. (Amended) A process as set forth in claim 223, further comprising the acts of:  
generating data compressed image information in response to the transformed image information;  
generating spatially interpolated image information in response to the data compressed image information;  
generating temporally interpolated image information in response to the spatially interpolated image information; and  
generating the prior pixel image information in response to the temporally interpolated image information.

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235. (Amended) A process comprising the acts of:  
storing prior pixel image information representing a prior image;  
storing next pixel image information representing a next image;  
generating prior motion vector information in response to the prior pixel image information;  
generating next motion vector information in response to the next pixel image information; and  
generating spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior motion vector information and in response to the next motion vector information.

236. (Amended) A process as set forth in claim 235, further comprising the act of:  
communicating output image information over an RF data link in response to the spatially interpolated image information.



237. (Amended) A process as set forth in claim 235, further comprising the acts of:

storing weight information;  
storing scale factor information;  
generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the spatially interpolated image information; and  
generating the prior pixel image information in response to the scaled weighted image information.

238. (Amended) A process comprising the acts of:

storing a frame of prior pixel image information representing a prior image;  
storing a frame of next pixel image information representing a next image;  
generating subpixel vector change information having subpixel resolution in response to the frame of prior pixel image information and in response to the frame of next pixel image information;  
generating weight information; and  
generating weighted image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, and in response to the weight information.

239. (Amended) A process as set forth in claim 238, further comprising the act of:

communicating output image information over an RF data link in response to the weighted image information.

240. (Amended) A process as set forth in claim 238, further comprising the acts of:

generating spatially interpolated image information in response to the weighted image information;  
generating temporally interpolated image information in response to the spatially interpolated image information; and

generating the frame of prior pixel image information in response to the temporally interpolated image information.

241. (Amended) A process comprising the acts of:

storing prior pixel image information representing a prior image;  
 storing next pixel image information representing a next image;  
 generating weight information;  
 generating scale factor information;  
 writing weight input information into a memory in response to the weight information;  
 storing the weight input information in the memory; and  
 generating scaled weighted image information in response to the prior pixel image information, in response to the next pixel image information, in response to the scale factor information, and in response to the weight input information.

242. (Amended) A process as set forth in claim 241, further comprising the act of:

communicating output image information over an RF data link in response to the scaled weighted image information.

243. (Amended) A process as set forth in claim 241, further comprising the acts of:

generating spatially interpolated image information in response to the scaled weighted image information;  
 generating temporally interpolated image information in response to the spatially interpolated image information; and  
 generating the prior pixel image information in response to the temporally interpolated image information.

244. (Amended) A process comprising the acts of:

storing a prior 64-pixel block of pixel image information;  
 storing a next 64-pixel block of pixel image information; and

① generating a temporally interpolated 64-pixel block of image information by temporally interpolating between the prior 64-pixel block of pixel image information and the next 64-pixel block of pixel image information.

245. (Amended) A process as set forth in claim 244, further comprising the act of:  
communicating output image information over an RF data link in response to the temporally interpolated 64-pixel block of image information.

246. (Amended) A process as set forth in claim 244, further comprising the acts of:  
storing weight information;  
storing scale factor information;  
generating a 64-pixel block of scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the temporally interpolated 64-pixel block of image information; and  
generating the prior 64-pixel block of image information in response to the 64-pixel block of scaled weighted image information.

247. (Amended) A process as set forth in claim 244, further comprising the acts of:  
generating a spatially interpolated 64-pixel block of image information in response to the temporally interpolated 64-pixel block of image information;  
generating a second temporally interpolated 64-pixel block of image information in response to the spatially interpolated 64-pixel block of image information; and  
generating the prior 64-pixel block of image information in response to the second temporally interpolated 64-pixel block of image information.

248. (Amended) A system as set forth in claim 105,  
wherein the prior motion vector information includes prior frame horizontal-axis motion vector information and prior frame vertical-axis motion vector information; and  
wherein the next motion vector information includes next frame horizontal-axis motion vector information and next frame vertical-axis motion vector information.

249. (Amended) A process comprising the acts of:

storing a frame of prior pixel image information representing a prior image;  
 storing a frame of next pixel image information representing a next image;  
 generating prior vector information in response to the frame of prior pixel image information;  
 generating next vector information in response to the frame of next pixel image information;  
 generating weight information;  
 generating scale factor information;  
 writing weight input information into a memory in response to the weight information;  
 storing the weight input information in the memory;  
 generating scaled weighted image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, in response to the scale factor information, in response to the weight input information stored in the memory, in response to the prior vector information, and in response to the next vector information; and  
 generating reduced resolution image information in response to the scaled weighted image information.

250. (Amended) A process as set forth in claim 249, further comprising the act of:

communicating output image information over an RF data link in response to the reduced resolution image information.

251. (Amended) A process as set forth in claim 249, further comprising the acts of:

generating data compressed image information in response to the reduced resolution image information;  
 generating transformed image information in response to the data compressed image information; and  
 generating the frame of prior pixel image information in response to the transformed image information.

252. (Amended) A process comprising the acts of:  
storing prior pixel image information representing a prior image;  
storing next pixel image information representing a next image; and  
generating spatially interpolated image information in response to the prior pixel image information and in response to the next pixel image information.

253. (Amended) A process as set forth in claim 252, further comprising the act of:  
communicating output image information over an RF data link in response to the spatially interpolated image information.

254. (Amended) A process as set forth in claim 252, further comprising the act of:  
storing weight information;  
generating weighted image information in response to the weight information and in response to the spatially interpolated image information; and  
generating the prior pixel image information in response to the weighted image information.

255. (Amended) A process comprising the acts of:  
storing prior pixel image information representing a prior image;  
storing next pixel image information representing a next image; and  
generating 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information and in response to the next pixel image information.

256. (Amended) A process as set forth in claim 255, further comprising the act of:  
communicating output image information over an RF data link in response to the 64-pixel blocks of spatially interpolated image information.

257. (Amended) A process as set forth in claim 255, further comprising the acts of:  
storing weight information;  
storing scale factor information;

generating 64-pixel blocks of scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the 64-pixel blocks of spatially interpolated image information; and

generating the prior pixel image information in response to the 64-pixel blocks of scaled weighted image information.

258. (Amended) A process comprising the acts of:

storing a frame of prior pixel image information representing a prior image;  
 storing a frame of next pixel image information representing a next image;  
 generating prior motion vector information in response to the frame of prior pixel image information;  
 generating next motion vector information in response to the frame of next pixel image information; and  
 generating a frame of spatially interpolated image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, in response to the prior motion vector information, and in response to the next motion vector information.

259. (Amended) A process as set forth in claim 258, further comprising the act of:

communicating output image information over an RF data link in response to the frame of spatially interpolated image information.

260. (Amended) A process as set forth in claim 258, further comprising the acts of:

generating a data compressed frame of image information in response to the frame of spatially interpolated image information;

generating a frame of transformed image information in response to the data compressed frame of image information; and

generating the frame of prior pixel image information in response to the frame of transformed image information.

261. (Amended) A process comprising the acts of:

storing prior pixel image information representing a prior image;  
storing next pixel image information representing a next image;  
generating subpixel vector change information having subpixel resolution in response to the prior pixel image information and in response to the next pixel image information; and  
generating transformed image information in response to the prior pixel image information and in response to the next pixel image information.

262. (Amended) A process as set forth in claim 261, further comprising the act of:

communicating output image information over an RF data link in response to the transformed image information.

263. (Amended) A process as set forth in claim 261, further comprising the acts of:

generating data compressed image information in response to the transformed image information;  
generating second transformed image information in response to the data compressed image information; and  
generating the prior pixel image information in response to the second transformed image information.

264. (Amended) A process comprising the acts of:

storing a frame of prior pixel image information representing a prior image;  
storing a frame of next pixel image information representing a next image; and  
generating transformed image information in response to the frame of prior pixel image information and in response to the frame of next pixel image information.

265. (Amended) A process as set forth in claim 264, further comprising the act of:

communicating output image information over an RF data link in response to the transformed image information.

266. (Amended) A system as set forth in claim 107,

wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

267. (Amended) A process comprising the acts of:

storing prior pixel image information representing a prior image;  
storing next pixel image information representing a next image; and  
generating transformed image information in response to the prior pixel image information and in response to the next pixel image information.

268. (Amended) A process as set forth in claim 267, further comprising the act of:

communicating output image information over an RF data link in response to the transformed image information.

269. (Amended) A process as set forth in claim 267, further comprising the acts of:

generating data compressed image information in response to the transformed image information;

storing weight information;

storing scale factor information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;



generating spatially interpolated image information in response to the second transformed image information;

generating temporally interpolated image information in response to the spatially interpolated image information; and

generating the prior pixel image information in response to the temporally interpolated image information.

271. (Amended) A process as set forth in claim 270, further comprising the act of:

communicating output image information over an RF data link in response to the scaled weighted image information.

272. (Amended) A process as set forth in claim 270, further comprising the acts of:

generating data compressed image information in response to the transformed image information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;

generating spatially interpolated image information in response to the second transformed image information;

generating temporally interpolated image information in response to the spatially interpolated image information; and

generating the feedback information in response to the temporally interpolated image information.

273. (Amended) A process comprising the acts of:

storing prior pixel image information representing a prior image;

storing next pixel image information representing a next image;

generating 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information and in response to the next pixel image information;

generating transformed image information in response to 64-pixel blocks of spatially interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information;

generating weight information;

generating scale factor information;

writing weight input information into a memory in response to the weight information;

storing the weight input information in the memory; and

generating scaled weighted image information in response to the transformed image information, in response to the scale factor information, and in response to the weight input information stored in the memory.

274. (Amended) A process as set forth in claim 273, further comprising the act of:  
communicating output image information over an RF data link in response to the scaled weighted image information.

275. (Amended) A process as set forth in claim 273, further comprising the acts of:  
generating data compressed image information in response to the scaled weighted image information;

generating second scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;

generating second spatially interpolated image information in response to the second transformed image information;

generating temporally interpolated image information in response to the second spatially interpolated image information; and

generating the prior pixel image information in response to the temporally interpolated image information.

276. (Amended) A process comprising the acts of:

storing prior pixel image information;  
 storing next pixel image information;  
 generating temporally interpolated image information between the prior pixel image information and the next pixel image information; and  
 generating transformed image information in response to the temporally interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information.

277. (Amended) A process as set forth in claim 276, further comprising the act of:

communicating output image information over an RF data link in response to the transformed image information.

278. (Amended) A process as set forth in claim 276, further comprising the acts of:

storing weight information;  
 storing scale factor information;  
 generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the transformed image information;

generating second transformed image information in response to the scaled weighted image information;

generating spatially interpolated image information in response to the second transformed image information;

generating second temporally interpolated image information in response to the spatially interpolated image information; and

generating the prior pixel image information in response to the second temporally interpolated image information.

279. (Amended) A process comprising the acts of:

- storing prior pixel image information representing a prior image;
- storing next pixel image information representing a next image;
- generating prior motion vector information in response to the prior pixel image information;
- generating next motion vector information in response to the next pixel image information;
- generating 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior motion vector information, and in response to the next motion vector information;
- and
- generating transformed image information in response to the 64-pixel blocks of spatially interpolated image information, in response to the prior pixel image information, and in response to the next pixel image information.

280. (Amended) A process as set forth in claim 279, further comprising the act of:

- communicating output image information over an RF data link in response to the transformed image information.

281. (Amended) A process as set forth in claim 279, further comprising the acts of:

- storing weight information;
- storing scale factor information;
- generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the transformed image information;
- generating second transformed image information in response to the scaled weighted image information;
- generating second spatially interpolated image information in response to the second transformed image information;

*I, 2*  
*C, 2*  
 generating temporally interpolated image information in response to the second spatially interpolated image information; and

generating the prior pixel image information in response to the temporally interpolated image information.

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284. (Amended) A system as set forth in claim 98,

wherein the spatial interpolation circuit includes a spatial interpolation processor circuit for generating the spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the subpixel vector change circuit includes a subpixel vector change processor circuit generating the subpixel vector change information having subpixel resolution in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the weight circuit includes a weight processor circuit for generating the weight information;

*I, 3*  
 wherein the scale factor circuit includes a scale factor processor circuit for generating the scale factor information;

wherein the weighting and scaling circuit includes a weighting and scaling processor circuit for generating the scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

wherein the resolution reduction circuit includes a resolution reduction processor circuit for generating the reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit; and

wherein the display circuit includes a display processor circuit for generating the display image information in response to the reduced resolution image information generated by the resolution reduction circuit.

285. (Amended) A system as set forth in claim 98,

wherein the first memory includes a plurality of first memories for storing the prior pixel image information, and the prior pixel image information representing the prior image;

wherein the second memory includes a plurality of second memories for storing the next pixel image information, the second memory storing the next pixel image information and the next pixel image information representing the next image;

wherein the spatial interpolation circuit includes a plurality of spatial interpolation circuits for generating the spatially interpolated image information in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the subpixel vector change circuit includes a plurality of subpixel vector change circuits for generating the subpixel vector change information having subpixel resolution in response to the prior pixel image information stored in the first memory and in response to the next pixel image information stored in the second memory;

wherein the transform processor includes a plurality of transform processors for generating the transformed image information in response to the spatially interpolated image information generated by the spatial interpolation circuit;

wherein the weight circuit includes a plurality of weight circuits for generating the weight information;

wherein the scale factor circuit includes a plurality of scale factor circuits for generating the scale factor information;

wherein the weighting and scaling circuit includes a plurality of weighting and scaling circuits for generating the scaled weighted image information in response to the transformed image information generated by the transform processor, in response to the scale factor information generated by the scale factor circuit, and in response to the weight information generated by the weight circuit;

wherein the resolution reduction circuit includes a plurality of resolution reduction circuits for generating the reduced resolution image information in response to the scaled weighted image information generated by the weighting and scaling circuit;

wherein the image communication link includes a plurality of image communication links for communicating the output image information in response to the reduced resolution image information generated by the resolution reduction circuit;

wherein the vector communication link includes a plurality of vector communication links for communicating output subpixel vector information in response to the subpixel vector change information generated by the subpixel vector change circuit;

wherein the display circuit includes a plurality of display circuits for generating the display image information in response to the reduced resolution image information generated by the resolution reduction circuit; and

wherein the display device includes a plurality of display devices for displaying the image in response to the display image information generated by the display circuit.

381. (Amended) A system comprising:

memory means for storing a prior 64-pixel block of image information;

memory means for storing a next 64-pixel block of image information;

means for generating a plurality of temporally interpolated 64-pixel blocks of image information between the prior 64-pixel block of image information and the next 64-pixel block of image information; and

means for generating transformed image information in response to the plurality of temporally interpolated 64-pixel blocks of image information, in response to the prior 64-pixel block of image information, and in response to the next 64-pixel block of image information.

382. (Amended) A system comprising:

memory means for storing pixel image information;

means for generating spatially interpolated image information in response to the pixel image information stored in the memory means;

means for generating subpixel difference image information having subpixel resolution by subtracting in response to the pixel image information stored in the memory means and in response to feedback information;

means for generating weight information;

weight memory means;

means for writing weight input information into the weight memory in response to the weight information, the weight memory means storing the weight input information;

means for generating weighted image information in response to the weight input information stored in the weight memory means and in response to the spatially interpolated image information; and

means for generating the feedback information in response to the weighted image information.

383. (Amended) A system comprising:

memory means for storing a prior 64-pixel block of image information;

memory means for storing a next 64-pixel block of image information;

means for generating a first temporally interpolated 64-pixel block of image information by temporally interpolating between the prior 64-pixel block of image information and the next 64-pixel block of image information;

means for generating a second temporally interpolated 64-pixel block of image information by temporally interpolating between the prior 64-pixel block of image information and the next 64-pixel block of image information;

means for generating a third temporally interpolated 64-pixel block of image information by temporally interpolating between the prior 64-pixel block of image information and the next 64-pixel block of image information;

means for generating first transformed image information in response to the first temporally interpolated 64-pixel block of image information;

means for generating second transformed image information in response to the second temporally interpolated 64-pixel block of image information; and

means for generating third transformed image information in response to the third temporally interpolated 64-pixel block of image information.



384. (Amended) A system comprising:

memory means for storing a prior 64-pixel block of image information;

memory means for storing a next 64-pixel block of image information;

means for generating first temporally interpolated image information by temporally interpolating between the prior 64-pixel block of image information and the next 64-pixel block of image information;

means for generating second temporally interpolated image information by temporally interpolating between the prior 64-pixel block of image information and the next 64-pixel block of image information;

means for generating third temporally interpolated image information by temporally interpolating between the prior 64-pixel block of image information and the next 64-pixel block of image information;

means for generating first transformed image information in response to the first temporally interpolated image information;

means for generating second transformed image information in response to the second temporally interpolated image information;

means for generating third transformed image information in response to the third temporally interpolated image information;

means for generating weight information;

weight memory means;

means for writing weight input information into the weight memory means in response to the weight information, the weight memory means storing the weight input information;

means for generating first weighted image information in response to the weight input information stored in the weight memory means and in response to the first transformed image information;

means for generating second weighted image information in response to the weight input information stored in the weight memory means and in response to the second transformed image information; and

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means for generating third weighted image information in response to the weight input information stored in the weight memory means and in response to the third transformed image information.

385. (Amended) A process comprising the acts of:

storing a prior 64-pixel block of image information representing a prior image;  
 storing a next 64-pixel block of image information representing a next image;  
 generating prior vector information in response to the prior 64-pixel block of image information;  
 generating next vector information in response to the next 64-pixel block of image information;  
 generating a temporally interpolated 64-pixel block of image information by temporally interpolating in response to the prior 64-pixel block of image information, in response to the next 64-pixel block of image information, in response to the prior vector information, and in response to the next vector information;  
 generating transformed image information in response to the temporally interpolated 64-pixel block of image information; and  
 generating reduced resolution image information in response to the transformed image information.

386. (Amended) A process as set forth in claim 385, further comprising the acts of:

generating data compressed image information in response to the reduced resolution image information;  
 storing weight information;  
 storing scale factor information;  
 generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;  
 generating second transformed image information in response to the scaled weighted image information;

generating spatially interpolated image information in response to the second transformed image information;

generating second temporally interpolated image information in response to the spatially interpolated image information; and

generating the prior 64-pixel block of image information in response to the second temporally interpolated image information.

387. (Amended) A process as set forth in claim 385, further comprising the act of making a data compressed database product in response to the reduced resolution image information.

389. (Amended) A process as set forth in claim 109,  
 wherein the prior motion vector information includes prior frame horizontal-axis motion vector information and prior frame vertical-axis motion vector information; and  
 wherein the next motion vector information includes next frame horizontal-axis motion vector information and next frame vertical-axis motion vector information.

390. (Amended) A process comprising the acts of:  
 storing a frame of pixel image information in a memory;  
 generating spatially interpolated image information in response to the frame of pixel image information and in response to feedback information;  
 generating weight information;  
 generating scale factor information;  
 generating scaled weighted image information in response to the spatially interpolated image information, in response to the weight information, and in response to the scale factor information;  
 generating reduced resolution image information in response to the scaled weighted image information; and  
 generating the feedback information in response to the reduced resolution image information.

391. (Amended) A process as set forth in claim 390, further comprising the acts of:

generating data compressed image information in response to the reduced resolution image information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating transformed image information in response to the scaled weighted image information;

generating second spatially interpolated image information in response to the transformed image information;

generating temporally interpolated image information in response to the second spatially interpolated image information; and

generating the feedback information in response to the temporally interpolated image information.

394. (Amended) A process as set forth in claim 390, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;

storing prior frame first field vertical-axis motion vector information;

storing prior frame second field horizontal-axis motion vector information;

storing prior frame second field vertical-axis motion vector information;

storing next frame first field horizontal-axis motion vector information;

storing next frame first field vertical-axis motion vector information;

storing next frame second field horizontal-axis motion vector information;

storing next frame second field vertical-axis motion vector information; and

generating the spatially interpolated image information in response to the frame of pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first

field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

395. (Amended) A process comprising the acts of:

storing a prior 64-pixel block of image information;  
 storing a next 64-pixel block of image information;  
 generating a first temporally interpolated 64-pixel block of image information between the prior 64-pixel block of image information and the next 64-pixel block of image information;  
 generating a second temporally interpolated 64-pixel block of image information between the prior 64-pixel block of image information and the next 64-pixel block of image information;  
 generating a third temporally interpolated 64-pixel block of image information between the prior 64-pixel block of image information and the next 64-pixel block of image information;  
 generating first reduced resolution image information in response to the first temporally interpolated 64-pixel block of image information;  
 generating second reduced resolution image information in response to the second temporally interpolated 64-pixel block of image information; and  
 generating third reduced resolution image information in response to the third temporally interpolated 64-pixel block of image information.

396. (Amended) A system as set forth in claim 121,

wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

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wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

399. (Amended) A system as set forth in claim 123,

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wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

402. (Amended) A system as set forth in claim 137,

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wherein the prior motion vector information includes prior frame horizontal-axis motion vector information and prior frame vertical-axis motion vector information; and

wherein the next motion vector information includes next frame horizontal-axis motion vector information and next frame vertical-axis motion vector information.

405. (Amended) A system as set forth in claim 141,

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wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

407. (Amended) A process as set forth in claim 115, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information; and
- generating the 64-pixel blocks of spatially interpolated image information in

response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

408. (Amended) A process as set forth in claim 115, further comprising the acts of:

- making a display product in response to the 64-pixel blocks of spatially interpolated image information; and
- making a second product in response to the display product.

409. (Amended) A process as set forth in claim 125, further comprising the act of making a database product in response to the transformed image information.

411. (Amended) A process as set forth in claim 125, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating spatially interpolated image information in response to the prior pixel

image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the temporally interpolated image information in response to the spatially interpolated image information.

413. (Amended) A process as set forth in claim 127, further comprising the acts of:

- making a display product in response to the transformed image information; and
- making a second product in response to the display product.

414. (Amended) A process as set forth in claim 127, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;



storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;  
 generating spatially interpolated image information in response to the prior pixel  
 image information, in response to the next pixel image information, in response to the prior  
 frame first field horizontal-axis motion vector information, in response to the prior frame first  
 field vertical-axis motion vector information, in response to the prior frame second field  
 horizontal-axis motion vector information, in response to the prior frame second field vertical-  
 axis motion vector information, in response to the next frame first field horizontal-axis motion  
 vector information, in response to the next frame first field vertical-axis motion vector  
 information, in response to the next frame second field horizontal-axis motion vector  
 information, and in response to the next frame second field vertical-axis motion vector  
 information; and  
 generating the transformed image information in response to the spatially  
 interpolated image information.

417. (Amended) A process as set forth in claim 143, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;

generating spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the scaled weighted image information in response to the spatially interpolated image information.

420. (Amended) A process as set forth in claim 153, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;  
 generating the spatially interpolated image information in response to the pixel

image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field

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horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

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422. (Amended) A system as set forth in claim 121, further comprising:

- a satellite navigator generating satellite navigation information;
- a data link communicating data link information from a remote location;
- a disk memory storing disk memory information; and
- a display displaying an image in response to the frame of temporally interpolated image information, in response to the satellite navigation information, in response to the data link information, and in response to the disk memory information.

423. (Amended) A process as set forth in claim 157, further comprising the acts of:

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- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating spatially interpolated image information in response to the pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and
- generating the transformed image information in response to the spatially interpolated image information.

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425. (Amended) A process as set forth in claim 161, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating spatially interpolated image information in response to the pixel image

information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

427. (Amended) A process as set forth in claim 252, further comprising the acts of:

- generating GPS navigation information;
- communicating data link information from a remote location with a data link;
- storing disk memory information in a disk memory; and

displaying an image in response to the spatially interpolated image information, in response to the GPS navigation information, in response to the data link information, and in response to the disk memory information.

428. (Amended) A process as set forth in claim 165, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information; and
- generating the spatially interpolated image information in response to the pixel

image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

430. (Amended) A process as set forth in claim 258, further comprising the acts of:

- generating input image information;
- generating first data compressed image information by data compressing in response to the input image information;
- storing second data compressed image information in a memory in response to the first data compressed image information;
- generating data decompressed image information by data decompressing in response to second data compressed image information;
- generating the frame of prior pixel image information in response to the data decompressed image information;

generating the frame of next pixel image information in response to the data decompressed image information; and

displaying an image in response to the frame of spatially interpolated image information.

431. (Amended) A process as set forth in claim 171,

wherein the prior motion vector information includes prior frame horizontal-axis motion vector information and prior frame vertical-axis motion vector information; and

wherein the next motion vector information includes next frame horizontal-axis motion vector information and next frame vertical-axis motion vector information.

433. (Amended) A process as set forth in claim 261, further comprising the acts of:

generating first data compressed image information by data compressing in response to the transformed image information;

generating communicated second data compressed image information with a data link in response to the first data compressed image information;

generating data decompressed image information by data decompressing in response to the communicated second data compressed image information; and

displaying an image in response to the data decompressed image information.

434. (Amended) A process as set forth in claim 187,

wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

436. (Amended) A process as set forth in claim 255, further comprising the acts of:  
 displaying a first perspective of an image in response to the 64-pixel blocks of spatially interpolated image information; and  
 displaying a second perspective of the image in response to the 64-pixel blocks of spatially interpolated image information, wherein the second perspective of the image is X-axis offset from the first perspective of the image.

437. (Amended) A process as set forth in claim 190, further comprising the acts of:  
 storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information; and  
 generating the spatially interpolated image information in response to the pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

439. (Amended) A process as set forth in claim 273, further comprising the acts of:  
 generating the scaled weighted image information as a first channel of scaled weighted image information representing a first perspective of an image in response to the transformed image information, in response to the scale factor information, and in response to the

weight input information and as a second channel of scaled weighted image information representing a second perspective of the image in response to the transformed image information, in response to the scale factor information, and in response to the weight input information, wherein the second perspective of the image is horizontally offset from the first perspective of the image; and

generating multiplexed image information in response to the first channel of scaled weighted image information and in response to the second channel of scaled weighted image information.

440. (Amended) A system as set forth in claim 155,

wherein the prior motion vector information includes prior frame horizontal-axis motion vector information and prior frame vertical-axis motion vector information; and

wherein the next motion vector information includes next frame horizontal-axis motion vector information and next frame vertical-axis motion vector information.

443. (Amended) A process as set forth in claim 190, further comprising the acts of:

storing prior frame horizontal-axis motion vector information;

storing prior frame vertical-axis motion vector information;

storing next frame horizontal-axis motion vector information;

storing next frame vertical-axis motion vector information;

generating the spatially interpolated image information in response to the pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information.

444. (Amended) A process as set forth in claim 201, further comprising the act of making an entertainment product in response to the weighted image information.



445. (Amended) A process as set forth in claim 204, further comprising the acts of:

- storing prior frame horizontal-axis motion vector information;
- storing prior frame vertical-axis motion vector information;
- storing next frame horizontal-axis motion vector information;
- storing next frame vertical-axis motion vector information; and
- generating the 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information.

446. (Amended) A process as set forth in claim 201, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating the 64-pixel blocks of spatially interpolated image information in response to the pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

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(112) generating the transformed image information in response to the spatially interpolated image information.

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448. (Amended) A process as set forth in claim 204, further comprising the acts of:  
 storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;  
 generating the 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

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450. (Amended) A process as set forth in claim 209,  
 wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

451. (Amended) A process as set forth in claim 212, further comprising the act of making a television product in response to the transformed image information.

452. (Amended) A process as set forth in claim 279, further comprising the acts of:  
 generating a first channel of output image information representing a first perspective of an image in response to the transformed image information; and  
 generating a second channel of output image information representing a second perspective of the image in response to the first channel of output image information, wherein the second perspective of the image is from a different horizontal displacement than the horizontal displacement of the first perspective of the image; and  
 generating multiplexed image information in response to the first channel of output image information and in response to the second channel of output image information.

453. (Amended) A process as set forth in claim 212,  
 wherein the prior motion vector information includes prior frame horizontal-axis motion vector information and prior frame vertical-axis motion vector information; and  
 wherein the next motion vector information includes next frame horizontal-axis motion vector information and next frame vertical-axis motion vector information.

455. (Amended) A process as set forth in claim 215, further comprising the acts of:  
 storing prior frame horizontal-axis motion vector information;  
 storing prior frame vertical-axis motion vector information;  
 storing next frame horizontal-axis motion vector information;  
 storing next frame vertical-axis motion vector information;

generating spatially interpolated image information in response to the pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

456. (Amended) A process as set forth in claim 215, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;

storing prior frame first field vertical-axis motion vector information;

storing prior frame second field horizontal-axis motion vector information;

storing prior frame second field vertical-axis motion vector information;

storing next frame first field horizontal-axis motion vector information;

storing next frame first field vertical-axis motion vector information;

storing next frame second field horizontal-axis motion vector information;

storing next frame second field vertical-axis motion vector information;

generating spatially interpolated image information in response to the pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

458. (Amended) A process as set forth in claim 218, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating spatially interpolated image information in response to the pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and
- generating the transformed image information in response to the spatially interpolated image information.

459. (Amended) A process as set forth in claim 223, further comprising the act of making a geophysical product in response to the transformed image information.

460. (Amended) A process as set forth in claim 223, further comprising the acts of:

- storing prior frame horizontal-axis motion vector information;
- storing prior frame vertical-axis motion vector information;
- storing next frame horizontal-axis motion vector information;
- storing next frame vertical-axis motion vector information;

generating spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information; and  
generating the transformed image information in response to the spatially interpolated image information.

461. (Amended) A process as set forth in claim 223, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;  
storing prior frame first field vertical-axis motion vector information;  
storing prior frame second field horizontal-axis motion vector information;  
storing prior frame second field vertical-axis motion vector information;  
storing next frame first field horizontal-axis motion vector information;  
storing next frame first field vertical-axis motion vector information;  
storing next frame second field horizontal-axis motion vector information;  
storing next frame second field vertical-axis motion vector information;  
generating spatially interpolated image information in response to the prior pixel

image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

463. (Amended) A process as set forth in claim 226, further comprising the acts of:

- storing prior frame horizontal-axis motion vector information;
- storing prior frame vertical-axis motion vector information;
- storing next frame horizontal-axis motion vector information;
- storing next frame vertical-axis motion vector information; and
- generating the frame of spatially interpolated image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information.

464. (Amended) A process as set forth in claim 226, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating the frame of spatially interpolated image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector

information, and in response to the next frame second field vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

467. (Amended) A process as set forth in claim 229, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating the 64-pixel blocks of spatially interpolated image information in

response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

468. (Amended) A process as set forth in claim 232, further comprising the act of making a processed product in response to the transformed image information.

469. (Amended) A process as set forth in claim 232, further comprising the acts of:

- storing prior frame horizontal-axis motion vector information;
- storing prior frame vertical-axis motion vector information;



storing next frame horizontal-axis motion vector information;  
 storing next frame vertical-axis motion vector information; and  
 generating the 64-pixel blocks of spatially interpolated image information in response to the pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information.

470. (Amended) A process as set forth in claim 232, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information; and  
 generating the 64-pixel blocks of spatially interpolated image information in response to the pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

472. (Amended) A process as set forth in claim 226, further comprising the acts of:

generating a first channel of output image information representing a first perspective of an image in response to the transformed image information;

generating a second channel of output image information representing a second perspective of the image in response to the transformed image information, wherein the second perspective of the image is from a different X-axis position than the X-axis position of the first perspective of the image; and

I 39 generating multiplexed image information in response to the first channel of output image information and in response to the second channel of output image information.

473. (Amended) A process as set forth in claim 235,

wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

475. (Amended) A process as set forth in claim 238, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;

storing prior frame first field vertical-axis motion vector information;

storing prior frame second field horizontal-axis motion vector information;

storing prior frame second field vertical-axis motion vector information;

I 40 storing next frame first field horizontal-axis motion vector information;

storing next frame first field vertical-axis motion vector information;

storing next frame second field horizontal-axis motion vector information;

storing next frame second field vertical-axis motion vector information;

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generating spatially interpolated image information in response to the frame of prior pixel image information, in response to the frame of next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the weighted image information in response to the spatially interpolated image information.

477. (Amended) A process as set forth in claim 241, further comprising the acts of:

storing prior frame horizontal-axis motion vector information;

storing prior frame vertical-axis motion vector information;

storing next frame horizontal-axis motion vector information;

storing next frame vertical-axis motion vector information;

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generating spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information; and

generating the scaled weighted image information in response to the spatially interpolated image information.

478. (Amended) A process as set forth in claim 241, further comprising the acts of:

storing prior frame first field horizontal-axis motion vector information;

storing prior frame first field vertical-axis motion vector information;

storing prior frame second field horizontal-axis motion vector information;

storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;  
 generating spatially interpolated image information in response to the prior pixel  
 image information, in response to the next pixel image information, in response to the prior  
 frame first field horizontal-axis motion vector information, in response to the prior frame first  
 field vertical-axis motion vector information, in response to the prior frame second field  
 horizontal-axis motion vector information, in response to the prior frame second field vertical-  
 axis motion vector information, in response to the next frame first field horizontal-axis motion  
 vector information, in response to the next frame first field vertical-axis motion vector  
 information, in response to the next frame second field horizontal-axis motion vector  
 information, and in response to the next frame second field vertical-axis motion vector  
 information; and  
 generating the scaled weighted image information in response to the spatially  
 interpolated image information.

480. (Amended) A process as set forth in claim 244, further comprising the acts of:  
 storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;  
 generating a spatially interpolated 64-pixel block of image information in  
 response to the prior 64-pixel block of pixel image information, in response to the next 64-pixel  
 block of pixel image information, in response to the prior frame first field horizontal-axis motion

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vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the temporally interpolated 64-pixel block of image information in response to the 64-pixel block of spatially interpolated image information.

483. (Amended) A process as set forth in claim 249,

wherein the prior motion vector information includes prior frame first field horizontal-axis motion vector information, prior frame first field vertical-axis motion vector information, prior frame second field horizontal-axis motion vector information, and prior frame second field vertical-axis motion vector information; and

wherein the next motion vector information includes next frame first field horizontal-axis motion vector information, next frame first field vertical-axis motion vector information, next frame second field horizontal-axis motion vector information, and next frame second field vertical-axis motion vector information.

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484. (Amended) A process as set forth in claim 252, further comprising the act of making a signal product in response to the spatially interpolated image information.

485. (Amended) A process as set forth in claim 252, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;

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storing next frame second field vertical-axis motion vector information; and  
generating the spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information.

487. (Amended) A process as set forth in claim 255, further comprising the acts of:  
storing prior frame horizontal-axis motion vector information;  
storing prior frame vertical-axis motion vector information;  
storing next frame horizontal-axis motion vector information;  
storing next frame vertical-axis motion vector information; and  
generating the 64-pixel blocks of spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame horizontal-axis motion vector information, in response to the prior frame vertical-axis motion vector information, in response to the next frame horizontal-axis motion vector information, and in response to the next frame vertical-axis motion vector information.

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488. (Amended) A process as set forth in claim 255, further comprising the acts of:  
storing prior frame first field horizontal-axis motion vector information;  
storing prior frame first field vertical-axis motion vector information;  
storing prior frame second field horizontal-axis motion vector information;  
storing prior frame second field vertical-axis motion vector information;  
storing next frame first field horizontal-axis motion vector information;

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storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information; and  
 generating the 64-pixel blocks of spatially interpolated image information in  
 response to the prior pixel image information, in response to the next pixel image information, in  
 response to the prior frame first field horizontal-axis motion vector information, in response to  
 the prior frame first field vertical-axis motion vector information, in response to the prior frame  
 second field horizontal-axis motion vector information, in response to the prior frame second  
 field vertical-axis motion vector information, in response to the next frame first field horizontal-  
 axis motion vector information, in response to the next frame first field vertical-axis motion  
 vector information, in response to the next frame second field horizontal-axis motion vector  
 information, and in response to the next frame second field vertical-axis motion vector  
 information.

490. (Amended) A process as set forth in claim 258,  
 wherein the prior motion vector information includes prior frame horizontal-axis  
 motion vector information and prior frame vertical-axis motion vector information; and  
 wherein the next motion vector information includes next frame horizontal-axis  
 motion vector information and next frame vertical-axis motion vector information.

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491. (Amended) A process as set forth in claim 218, further comprising the acts of:  
 storing prior frame first field horizontal-axis motion vector information;  
 storing prior frame first field vertical-axis motion vector information;  
 storing prior frame second field horizontal-axis motion vector information;  
 storing prior frame second field vertical-axis motion vector information;  
 storing next frame first field horizontal-axis motion vector information;  
 storing next frame first field vertical-axis motion vector information;  
 storing next frame second field horizontal-axis motion vector information;  
 storing next frame second field vertical-axis motion vector information;

generating spatially interpolated image information in response to the prior pixel image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

492. (Amended) A process as set forth in claim 261, further comprising the act of making an oil product in response to the transformed image information.

493. (Amended) A process as set forth in claim 232, further comprising the acts of:  
generating data compressed image information in response to the transformed image information;

storing weight information;

storing scale factor information;

generating scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;

generating second spatially interpolated image information in response to the second transformed image information;

generating temporally interpolated image information in response to the second spatially interpolated image information; and



generating the feedback image information in response to the temporally interpolated image information.

494. (Amended) A process as set forth in claim 261, further comprising the acts of:

- storing prior frame first field horizontal-axis motion vector information;
- storing prior frame first field vertical-axis motion vector information;
- storing prior frame second field horizontal-axis motion vector information;
- storing prior frame second field vertical-axis motion vector information;
- storing next frame first field horizontal-axis motion vector information;
- storing next frame first field vertical-axis motion vector information;
- storing next frame second field horizontal-axis motion vector information;
- storing next frame second field vertical-axis motion vector information;
- generating spatially interpolated image information in response to the prior pixel

image information, in response to the next pixel image information, in response to the prior frame first field horizontal-axis motion vector information, in response to the prior frame first field vertical-axis motion vector information, in response to the prior frame second field horizontal-axis motion vector information, in response to the prior frame second field vertical-axis motion vector information, in response to the next frame first field horizontal-axis motion vector information, in response to the next frame first field vertical-axis motion vector information, in response to the next frame second field horizontal-axis motion vector information, and in response to the next frame second field vertical-axis motion vector information; and

generating the transformed image information in response to the spatially interpolated image information.

496. (Amended) A process as set forth in claim 270, further comprising the acts of:

generating data compressed image information in response to the scaled weighted image information;

generating second scaled weighted image information in response to the weight information, in response to the scale factor information, and in response to the data compressed image information;

generating second transformed image information in response to the scaled weighted image information;

generating spatially interpolated image information in response to the second transformed image information;

I 46 generating temporally interpolated image information in response to the spatially interpolated image information; and

generating the feedback information in response to the temporally interpolated image information.

497. (Amended) A process as set forth in claim 109, further comprising the acts of:

generating data compressed image information in response to the temporally interpolated image information;

generating spatially interpolated image information in response to the data compressed image information;

generating second temporally interpolated image information in response to the spatially interpolated image information; and

generating the prior 64-pixel block of image information in response to the second temporally interpolated image information.

499. (Amended) A process as set forth in claim 115, further comprising the acts of:

generating data compressed 64-pixel blocks of image information in response to the 64-pixel blocks of spatially interpolated image information;

I 47 generating 64-pixel blocks of second spatially interpolated image information in response to the data compressed 64-pixel blocks of image information;

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generating 64-pixel blocks of temporally interpolated image information in response to the 64-pixel blocks of second spatially interpolated image information; and  
generating the prior pixel image information in response to the 64-pixel blocks of temporally interpolated image information.

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501. (Amended) A process as set forth in claim 125, further comprising the acts of:  
generating spatially interpolated image information in response to the transformed image information;  
generating second temporally interpolated image information in response to the spatially interpolated image information; and  
generating the prior pixel image information in response to the second temporally interpolated image information.

502. (Amended) A process as set forth in claim 127, further comprising the acts of:  
generating data compressed image information in response to the transformed image information;  
generating spatially interpolated image information in response to the data compressed image information;  
generating temporally interpolated image information in response to the spatially interpolated image information; and  
generating the prior pixel image information in response to the temporally interpolated image information.

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504. (Amended) A process as set forth in claim 273, further comprising the acts of:  
making a design product in response to the scaled weighted information; and  
making a second product in response to the design product.

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505. (Amended) A process as set forth in claim 143, further comprising the acts of:  
generating data compressed image information in response to the scaled weighted image information;  
generating spatially interpolated image information in response to the data compressed image information;  
generating temporally interpolated image information in response to the spatially interpolated image information; and  
generating the prior pixel image information in response to the temporally interpolated image information.

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507. (Amended) A process as set forth in claim 153, further comprising the acts of:  
generating transformed image information in response to the scaled weighted image information; and  
generating the feedback image information in response to the transformed image information.

508. (Amended) A process as set forth in claim 279, further comprising the act of making a machined product in response to the transformed image information.

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509. (Amended) A process as set forth in claim 161, further comprising the acts of:  
generating data compressed image information in response to the scaled weighted image information;  
generating second transformed image information in response to the data compressed image information; and  
generating the feedback image information in response to the second transformed image information.

510. (Amended) A process as set forth in claim 157, further comprising the acts of:

- generating second transformed image information in response to the scaled weighted image information; and
- generating the feedback image information in response to the second transformed image information.

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Please add new claims 511 - 548, as follows:

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--511. A process comprising the acts of:

storing a first field of image information;  
storing a second field of image information;  
generating first field vector information in response to the first field of image information;  
generating second field vector information in response to the second field of image information;  
generating a first field of temporally interpolated image information by temporally interpolating in response to the first field of image information, in response to the second field of image information, in response to the first field vector information, and in response to the second field vector information; and  
generating a second field of temporally interpolated image information by temporally interpolating in response to the first field of image information, in response to the second field of image information, in response to the first field vector information, and in response to the second field vector information.

--512. A process as set forth in claim 511, comprising the act of:

generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of temporally interpolated image information, in response to the second field of temporally interpolated image information, in response to the first field vector information, and in response to the second field vector information.

--513. A process comprising the acts of:

storing a first field of image information;  
storing a second field of image information;  
storing first field subpixel vector information;  
storing second field subpixel vector information;

generating a first field of spatially interpolated image information by spatially interpolating in response to the first field of image information and in response to the first field subpixel vector information; and

generating a second field of spatially interpolated image information by spatially interpolating in response to the second field of image information and in response to the second field subpixel vector information.

--514. A process as set forth in claim 513, comprising the act of:

displaying an image in response to the first field of spatially interpolated image information and in response to the second field of spatially interpolated image information.

~~--515. A process comprising the acts of:~~

~~storing a first field of image information;~~

~~storing a second field of image information;~~

~~generating first field subpixel vector information in response to the first field of image information;~~

~~generating second field subpixel vector information in response to the second field of image information;~~

~~generating a first field of scaled image information by scaling in response to the first field of image information and in response to the first field subpixel vector information; and~~

~~generating a second field of scaled image information by scaling in response to the second field of image information and in response to the second field subpixel vector information.~~

--516. A process as set forth in claim 515, comprising the act of:

generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of scaled image information, in response to the second field of scaled image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information.

--517. A process comprising the acts of:

- storing a first field of image information;
- storing a second field of image information;
- storing first field vector information;
- storing second field vector information;

generating a first field of scaled image information by scaling in response to the first field of image information, in response to the second field of image information, in response to the first field vector information, and in response to the second field vector information; and  
generating a second field of scaled image information by scaling in response to the first field of image information, in response to the second field of image information, in response to the first field vector information, and in response to the second field vector information.

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--518. A process as set forth in claim 517, comprising the act of:

displaying an image in response to the first field of scaled image information and in response to the second field of scaled image information.

--519. A process comprising the acts of:

- storing a first field of image information;
- storing a second field of image information;
- generating first field subpixel vector information in response to the first field of image information;

generating second field subpixel vector information in response to the second field of image information;

generating a first field of weighted image information by weighting in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information; and



generating a second field of weighted image information by weighting in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information.

--520. A process as set forth in claim 519, comprising the act of:

generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of weighted image information, in response to the second field of weighted image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information.

--521. A process comprising the acts of:

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 storing a first field of image information;  
 storing a second field of image information;  
 storing first field vector information;  
 storing second field vector information;  
 generating a first field of weighted image information by weighting in response to the first field of image information and in response to the first field vector information; and  
 generating a second field of weighted image information by weighting in response to the second field of image information and in response to the second field vector information.

--522. A process as set forth in claim 521, comprising the act of:

displaying an image in response to the first field of weighted image information and in response to the second field of weighted image information.

--523. A process comprising the acts of:

storing a first field of image information;  
 storing a second field of image information;

generating first field subpixel vector information in response to the first field of image information;

generating second field subpixel vector information in response to the second field of image information;

generating a first field of transformed image information by transforming in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information; and

generating a second field of transformed image information by transforming in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information.

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--524. A process as set forth in claim 523, comprising the act of:

generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of transformed image information, in response to the second field of transformed image information, in response to the first field subpixel vector information, and in response to the second field subpixel vector information.

--525. A process comprising the acts of:

storing a first field of image information;

storing a second field of image information;

storing first field vector information;

storing second field vector information;

generating a first field of transformed image information by transforming in response to the first field of image information and in response to the first field vector information; and

generating a second field of transformed image information by transforming in response to the second field of image information and in response to the second field vector information.

--526. A process as set forth in claim 525, comprising the act of:  
displaying an image in response to the first field of transformed image information and in response to the second field of transformed image information.

--527. A process comprising the acts of:  
storing a first field of image information;  
storing a second field of image information;  
generating first field subpixel motion vector information in response to the first field of image information;  
generating second field subpixel motion vector information in response to the second field of image information;  
generating a first field of spatially interpolated image information by spatially interpolating in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel motion vector information, and in response to the second field subpixel motion vector information; and  
generating a second field of spatially interpolated image information by spatially interpolating in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel motion vector information, and in response to the second field subpixel motion vector information.

--528. A process as set forth in claim 527, comprising the act of:  
generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of spatially interpolated image information, in response to the second field of spatially interpolated image information, in response to the first field subpixel motion vector information, and in response to the second field subpixel motion vector information.

--529. A process comprising the acts of:

- storing a first field of image information;
- storing a second field of image information;
- storing first field motion vector information;
- storing second field motion vector information;

generating a first field of interpolated image information by interpolating in response to the first field of image information, in response to the second field of image information, in response to the first field motion vector information, and in response to the second field motion vector information; and

generating a second field of interpolated image information by interpolating in response to the first field of image information, in response to the second field of image information, in response to the first field motion vector information, and in response to the second field motion vector information.

--530. A process as set forth in claim 529, comprising the act of:

displaying an image in response to the first field of interpolated image information and in response to the second field of interpolated image information.

--531. A process comprising the acts of:

- storing a first field of image information;
- storing a second field of image information;

generating first field subpixel motion vector information in response to the first field of image information;

generating second field subpixel motion vector information in response to the second field of image information;

generating a first field of scaled image information by scaling in response to the first field of image information, in response to the first field subpixel motion vector information; and

generating a second field of scaled image information by scaling  
in response to the second field of image information, and in response to the  
second field subpixel motion vector information.

--532. A process as set forth in claim 531, comprising the act of:

generating multiplexed information by multiplexing in response to the first field  
of image information, in response to the second field of image information, in response to the  
first field of scaled image information, in response to the second field of scaled image  
information, in response to the first field subpixel motion vector information, and in response to  
the second field subpixel motion vector information.

--533. A process comprising the acts of:

storing a first field of image information;  
storing a second field of image information;  
storing first field motion vector information;  
storing second field motion vector information;

generating a first field of scaled image information by scaling in response to the  
first field of image information, in response to the second field of image information, in response  
to the first field motion vector information, and in response to the second field motion vector  
information; and

generating a second field of scaled image information by scaling in response to  
the first field of image information, in response to the second field of image information, in  
response to the first field motion vector information, and in response to the second field motion  
vector information.

--534. A process as set forth in claim 533, comprising the act of:

displaying an image in response to the first field of scaled image information and  
in response to the second field of scaled image information.

--535. A process comprising the acts of:

storing a first field of image information;

storing a second field of image information;

generating first field motion vector information in response to the first field of image information;

generating second field motion vector information in response to the second field of image information;

generating a first field of weighted image information by weighting in response to the first field of image information, in response to the second field of image information, in response to the first field motion vector information, and in response to the second field motion vector information; and

generating a second field of weighted image information by weighting in response to the first field of image information, in response to the second field of image information, in response to the first field motion vector information, and in response to the second field motion vector information.

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~~--536. A process as set forth in claim 535, comprising the act of:~~

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~~generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of weighted image information, in response to the second field of weighted image information, in response to the first field motion vector information, and in response to the second field motion vector information.~~

--537. A process comprising the acts of:

storing a first field of image information;

storing a second field of image information;

storing first field subpixel motion vector information;

storing second field subpixel motion vector information;

generating a first field of weighted image information by weighting in response to the first field of image information and in response to the first field subpixel motion vector information; and

generating a second field of weighted image information by weighting in response to the second field of image information, and in response to the second field subpixel motion vector information.

--538. A process as set forth in claim 537, comprising the act of:

displaying an image in response to the first field of weighted image information and in response to the second field of weighted image information.

--539. A process comprising the acts of:

storing a first field of image information;

storing a second field of image information;

generating first field motion vector information in response to the first field of image information;

generating second field motion vector information in response to the second field of image information;

generating a first field of transformed image information by transforming in response to the first field of image information, in response to the first field motion vector information; and

generating a second field of transformed image information by transforming in response to the second field of image information, and in response to the second field motion vector information.

--540. A process as set forth in claim 539, comprising the act of:

generating multiplexed information by multiplexing in response to the first field of image information, in response to the second field of image information, in response to the first field of transformed image information, in response to the second field of transformed image information, in response to the first field motion vector information, and in response to the second field motion vector information.

--541. A process comprising the acts of:

storing a first field of image information;  
storing a second field of image information;  
storing first field subpixel motion vector information;  
storing second field subpixel motion vector information;

generating a first field of transformed image information by transforming in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel motion vector information, and in response to the second field subpixel motion vector information; and

generating a second field of transformed image information by transforming in response to the first field of image information, in response to the second field of image information, in response to the first field subpixel motion vector information, and in response to the second field subpixel motion vector information.

--542. A process as set forth in claim 541, comprising the act of:

displaying an image in response to the first field of transformed image information and in response to the second field of transformed image information.

~~--543. A process as set forth in claims 109, 113, 115, 125, 127, 143, 153, 157, 161, 165, 171, 187, 531, 533, 535, 537, 539, and 541, further comprising the acts of:~~

~~making a first product in response to the process; and  
making a second product in response to the first product.~~



--544. A process as set forth in claims ~~190, 193, 198, 201, 204, 209, 212, 215, 218, 523,~~  
525, 527, and 529, further comprising the acts of:

making a first product; and

making a second product in response to the first product.

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--545. A process as set forth in claims 223, 226, 229, 232, 235, 238, 241, 244, 249, 252,  
255, 511, 513, 515, 517, 519, and 521, further comprising the acts of:

making a first product in response to the process;

making a second product in response to the first product; and

making a third product in response to the second product.

--546. A process as set forth in claims 258, 261, 264, 267, 270, 273, 276, 279, 385, 390,  
and 395, further comprising the acts of:

making a first product;

making a second product in response to the first product; and

making a third product in response to the second product.

--547. A process as set forth in claims 109, 113, 115, 125, 127, 143, 153, 157, 161, 165,  
171, 187, 190, 193, 198, 201, 204, 209, 212, 215, 218, 223, 226, 523, 525, 527, 529, 531, 533,  
535, 537, 539, and 541, further comprising the act of making a product in response to the  
process.

--548. A process as set forth in claims 229, 232, 235, 238, 241, 244, 249, 252, 255, 258,  
261, 264, 267, 270, 273, 276, 279, 385, 390, 395, 511, 513, 515, 517, 519, and 521, further  
comprising the act of making a product.